

## EAST Search History

| Ref # | Hits | Search Query  | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|---|---|------------------|---------|---------------------|
| L19   | 91   | "347"/\$.ccls.<br>and ( ((Plunger or<br>piston) near2<br>(accelerat\$4 or<br>velocity or<br>speed) ) WITH<br>((Plunger or<br>piston) near2<br>(decelerat\$4 or<br>velocity or<br>speed) ) )   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/08/15<br>13:40 |
| L20   | 74   | "347"/\$.ccls.<br>and ( ((Plunger or<br>piston) near2<br>(accelerat\$4 or<br>velocity or<br>speed) ) WITH<br>((Plunger or<br>piston) near2<br>(decelerat\$4 or<br>velocity or<br>speed) ) ) AND<br>( (control\$3 or driv<br>\$3) near3 (graph<br>or signal or<br>waveform or<br>voltage) )  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/08/15<br>13:40 |
| L21   | 0    | "347"/\$.ccls.<br>and ( ((Plunger or<br>piston) near2<br>(accelerat\$4 or<br>velocity or<br>speed) ) WITH<br>((Plunger or<br>piston) near2<br>(decelerat\$4 or<br>velocity or<br>speed) ) ) WITH<br>( (control\$3 or driv<br>\$3) near3 (graph<br>or signal or<br>waveform or<br>voltage) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/08/15<br>13:41 |

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|-----|------|---|--|----|----|------------------|
| L23 | 4085 | ((Plunger or piston) near2 (accelerat\$4 or velocity or speed) ) WITH ((Plunger or piston) near2 (decelerat\$4 or velocity or speed) ) ) AND ( (control\$3 or driv \$3) near3 (graph or signal or waveform or voltage) )  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/08/15 14:00 |
| L24 | 832  | ((Plunger or piston) near2 (accelerat\$4 or velocity or speed) ) WITH ((Plunger or piston) near2 (decelerat\$4 or velocity or speed) ) ) SAME ( (control\$3 or driv \$3) near3 (graph or signal or waveform or voltage) ) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/08/15 14:00 |
| L25 | 355  | ((Plunger or piston) near2 (accelerat\$4 or velocity or speed) ) WITH ((Plunger or piston) near2 (decelerat\$4 or velocity or speed) ) ) with ( (control\$3 or driv \$3) near3 (graph or signal or waveform or voltage) ) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/08/15 14:00 |

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| L26 | 26   | ((Plunger or piston) near2 (accelerat\$4 or velocity or speed) ) WITH ((Plunger or piston) near2 (decelerat\$4 or velocity or speed) ) ) with ( (control\$3 or driv \$3) near3 (graph or signal or waveform or voltage) )and ((eject\$3 or discharg\$3)near2 (fluid or ink or liquid)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/08/15<br>14:02 |
| L32 | 1    | "347"/\$\$\$ccls.<br>and ( ((Plunger or piston) with (accelerat\$4 and decelerat\$4)) and (control\$3 or driv \$3) near3 (graph or signal or waveform or voltage) )  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/08/15<br>14:53 |
| L33 | 10   | "347"/\$\$\$ccls.<br>and ( ((Plunger or piston) with (accelerat\$4 and decelerat\$4)) )  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/08/15<br>14:54 |
| S12 | 1704 | 347/9  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>17:49 |
| S13 | 1000 | 347/9.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>17:49 |

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| S14 | 255  | 347/9 and<br>(Plunger or piston<br>or pump)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>17:50 |
| S15 | 2    | 347/9 and<br>((Plunger or<br>piston or pump)<br>NEAR2<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 or<br>speed or velocity))        | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>18:28 |
| S18 | 207  | "347"/\$\$\$ and<br>((Plunger or<br>piston or pump)<br>NEAR2<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 or<br>speed or velocity)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>18:29 |
| S19 | 207  | "347"/\$\$\$ and<br>((Plunger or<br>piston or pump)<br>NEAR2<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 or<br>speed or velocity)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>19:10 |
| S20 | 63   | "347"/\$\$\$ and<br>((Plunger or<br>piston or pump)<br>NEAR2<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 ))                        | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>18:29 |
| S22 | 1240 | "222"/\$\$\$ and<br>((Plunger or<br>piston or pump)<br>NEAR2<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 or<br>speed or velocity)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>19:11 |

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| S23 | 107  | "222"/\$\$\$ and<br>((Plunger or<br>piston or pump)<br>NEAR(Acceleration<br>or deceleration or<br>accelerat\$4 or<br>decelerat\$4 ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>19:11 |
| S24 | 76   | "222"/\$\$\$ and<br>((Plunger or<br>piston )NEAR<br>(Acceleration or<br>deceleration or<br>accelerat\$4 or<br>decelerat\$4 ))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/07/20<br>19:12 |
| S28 | 1068 | 347/20.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:14 |
| S30 | 10   | "347"/\$\$\$ccls.<br>and ( (Plunger or<br>piston or pump)<br>near2 ( (seal\$3<br>adj (rib or ring))<br>or gasket\$3 ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:15 |
| S31 | 57   | "347"/\$\$\$ccls.<br>and ( (Plunger or<br>piston or pump)<br>with ( (seal\$3 adj<br>(rib or ring)) or<br>gasket\$3 ))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:15 |
| S33 | 1    | S31 and<br>( (Plunger or<br>piston or pump)<br>near2 ( (air or gas<br>or bubble )adj<br>(remov\$4 or<br>exhaust\$3 or vent<br>or hole or groove<br>or slit or entrap\$4<br>or trap or trapp<br>\$3)) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:23 |
| S34 | 1830 | "222"/\$\$\$ccls.<br>and ( (Plunger or<br>piston or pump)<br>with ( (seal\$3 adj<br>(rib or ring)) or<br>gasket\$3 ))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:26 |

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| S35 | 54    | S34 and<br>( ( metering or<br>calibrat\$3 or<br>graduat\$4) near<br>(tube or cylinder<br>or pipe or canal or<br>conduit or duct or<br>channel ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:27 |
| S39 | 499   | "141"/\$\$\$\$.ccls.<br>and ( (Plunger or<br>piston or pump)<br>with ( (seal\$3 adj<br>(rib or ring)) or<br>gasket\$3 ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:34 |
| S40 | 10    | S39 and<br>( ( metering or<br>calibrat\$3 or<br>graduat\$4) near<br>(tube or cylinder<br>or pipe or canal or<br>conduit or duct or<br>channel ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:34 |
| S42 | 4     | S39 and<br>( (Plunger or<br>piston or pump)<br>near2 ( (air or gas<br>or bubble )adj<br>(remov\$4 or<br>exhaust\$3 or vent<br>or hole or groove<br>or slit or entrap\$4<br>or trap or trapp<br>\$3)) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:46 |
| S43 | 34236 | ( (Plunger or<br>piston or pump)<br>with ( (seal\$3 adj<br>(rib or ring)) or<br>gasket\$3 ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:53 |

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| S44 | 324  | ( (Plunger or piston or pump) with ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (metering or calibrat\$3 or graduat\$4 or scal \$3) near (tube or cylinder or pipe or canal or conduit or duct or channel ))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:53 |
| S46 | 64   | ( (Plunger or piston or pump) with ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (metering or calibrat\$3 or graduat\$4 or scal \$3) near3 (tube or cylinder or pipe or canal or conduit or duct or channel ))and ( (Plunger or piston or pump) with ( (air or gas or bubble )adj (remov\$4 or exhaust\$3 or vent or hole or groove or slit or entrap\$4 or trap or trapp \$3)) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/20<br>17:56 |
| S47 | 1239 | ( (Plunger or piston or pump) with ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (Plunger or piston or pump) with ( (air or gas or bubble )adj (remov\$4 or exhaust\$3 or vent or hole or groove or slit or entrap\$4 or trap or trapp \$3)) )  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>09:34 |

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| S48 | 7   | ( (Plunger or piston or pump) near ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (Plunger or piston or pump) near ( (air or gas or bubble )adj (remov\$4 or exhaust\$3 or vent or hole or groove or slit or entrap\$4 or trap or trapp \$3)) )   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>09:35 |
| S49 | 189 | ( (Plunger or piston or pump) near3 ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (Plunger or piston or pump) near3 ( (air or gas or bubble )adj (remov\$4 or exhaust\$3 or vent or hole or groove or slit or entrap\$4 or trap or trapp \$3)) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>09:35 |
| S50 | 88  | ( (Plunger or piston or pump) near2 ( (seal\$3 adj (rib or ring)) or gasket\$3 ))and ( (Plunger or piston or pump) near2 ( (air or gas or bubble )adj (remov\$4 or exhaust\$3 or vent or hole or groove or slit or entrap\$4 or trap or trapp \$3)) ) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>09:36 |
| S58 | 308 | (conduct\$4) with (conduct\$4 adj tape) with (conduct\$4 adj (paste or adhesive))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>13:27 |

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| S59 | 84 | ((conduct\$4) with<br>(conduct\$4 adj<br>tape) with<br>(conduct\$4 adj<br>(paste or<br>adhesive))with<br>connect\$4)                  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>13:29 |
| S60 | 47 | ((conduct\$4) with<br>(conduct\$4 adj<br>tape) with<br>(conduct\$4 adj<br>(paste or<br>adhesive))with<br>connect\$4)and<br>substrate  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>13:29 |
| S61 | 12 | ((conduct\$4) with<br>(conduct\$4 adj<br>tape) with<br>(conduct\$4 adj<br>(paste or<br>adhesive))with<br>connect\$4)with<br>substrate | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/03/21<br>13:29 |

8/ 15/ 2008 3:56:49 PM

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\ No\_33\_App10565504 \_ Method of asjusting droplets (discharging using PLUNGER  
accelerating and decelerating) .wsp